

18 KL 1845 SUB

SWETON®



Introducing the **18 KL 1845 SUB** from SWETON's revolutionary new KL Series, engineered to maximize power handling and acoustic performance using a more compact, cost-effective motor structure. With a formidable 1800W AES power rating and an intelligently optimized 4.5-inch voice coil, this subwoofer redefines thermal endurance and SPL output without the bulk of conventional 6-inch coil subwoofers.

With a measured X_{max} of 9.50 mm (Bl-limited), and V_d (Volume displacement) of approximately 2.34 liters, the 18 KL 1845 SUB is built to move air – lots of it – producing deep, clean, and impactful bass that hits where it matters. Its F_s of 37 Hz and controlled Q_{ts} of 0.43 give it fast transient response, while still allowing it to dig low.

Despite the smaller coil size, the Bl factor of 29.23 N/A and motor strength (Bl^2 / Re) of over 148.8 Ns/m signify a high-efficiency magnetic system. Paired with a lightweight 285.20 g moving mass and stiff suspension, the 18 KL 1845 SUB delivers outstanding cone control under heavy loads.

Recommended Enclosure Designs:

Enclosure Type	Volume (Net)	Port Size	Tuning (Fb)
Vented (Reflex)	140–160 L	Ø6" (150 mm) 200–220 mm	~40 Hz
Compact Reflex	110–120 L	Ø6" 260–300 mm	~45 Hz
4th-Order Bandpass	Front: 50L / Rear: 80L	Front port tuned to ~55 Hz	~40– 100 Hz usable
Horn-Loaded (Optional)	Folded rear horn, 180–220 L total	Custom flare	~40– 120 Hz

☑ Note: Horn-loaded enclosures can deliver extreme output but require longer cabinet sizes. 4th-order bandpass gives boomer output for DJs and mobile applications.

Recommended Crossover Points

Section	Filter Type	Frequency	Slope
Low Pass	LPF	90–100 Hz	24 dB/oct
High Pass	HPF (Sub protection)	35–40 Hz	18–24 dB/oct

Applications:

- Pro Touring Systems
- Outdoor Pandal and Festival Systems
- High SPL DJ Setups
- Cinema and Auditorium Low Frequency Effect reinforcement
- Subwoofer arrays for Roadshows & Processions

☑ Why Choose 18 KL 1845 SUB?

- **Smart Engineering:** Delivers more output in an economical 4.5" voice coil design
- **Superior Punch and Depth:** High V_d ensures deep, controlled bass response
- **Cost Efficiency:** Designed to keep price-performance ratio high for the Indian market
- **Built for Indian Conditions:** Keeps high temperature rises within safe limits ($T_v = 18.3K$)
- **Precision Tested:** Verified with Klippel Analyzer System ensuring reliability and repeatability

SPECIFICATIONS & PARAMETERS

Specifications

Nominal Diameter	458 mm
Nominal Impedance	8 Ω
Nominal Power Handling (AES)	1800 W
Program Power	3600 W
Sensitivity (1W/1m)	94 dB
Frequency Range	35-1200 Hz
Magnet Material	Ferrite
Voice Coil Diameter	114 mm (4.5 in)
Winding Material	COPPER
Former Material	GLASS FIBRE
Winding Type	In/Out

Mounting Info

Overall Diameter	458 mm
Bolt Circle Diameter	448 mm
Baffle Cutout Diameter	436 mm
Depth	200 mm
Flange and Gasket Thickness	18 mm
Gross Weight	21.60 Kgs

Parameters

Resonant Frequency	Fs	37 Hz
DC Resistance	Re	5.74 Ω
Electrical Q	Qes	0.44
Mechanical Q	Qms	17.44
Total Q	Qts	0.43
Compliance Equivalent Volume	Vas	141.45 Ltrs
Peak Diaphragm Displacement Volume	Vd	2.34 Ltrs
Effective Surface Area of Cone	Sd	1237.86 cm ²
Reference Efficiency	η_0	1.53%
Moving Mass including air load	Mms	285.20 gms
Motor Strength	Bl	29.23 T-m
Voice Coil Inductance	Le	1.53 mH
Efficiency Bandwidth Product	EBP	84 Hz
Voice Coil Overhang	Xmax	± 9.50 mm

Recone Kit

Recone Kit Number	REC18KL1845UB
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Z(f,x=0) Impedance

